Longitudinal Data System Committee

DRAFT – December 18, 2007

Mission:

The Longitudinal Data System Committee (LDS) will propose, develop and govern a system for sharing longitudinal data that will maximize the usefulness of management information to stakeholders and partners of North Dakota education, training , employment and service systems while protecting the privacy and security of personal information.

Committee Goals:

1. The committee shall plan and propose a longitudinal data system which:
    a. Provides for dissemination of management information to stakeholders and partners of state education, training, and employment systems as individuals cross agency lines;
    b. Uses data from state education and workforce data warehouses as standardized sources of longitudinal data; and
    c. Provides appropriate public access and accountability

    This will be accomplished by setting guidelines and standards for the collection and reporting of data.
2. The committee shall recommend policies, procedures, and guidelines to protect the privacy and security of personal information as provided by state and federal law.
3. The committee shall provide a report to the information technology committee, interim committee on education issues, and interim committee on economic development prior to the sixty-first legislative assembly on the status of the statewide longitudinal data system plan. The report shall include recommendations for further development, cost proposals, proposals for legislation, and data sharing governance, including recommendations concerning the long-term role and administration of the follow-up information in North Dakota for education and training program.
4. The committee will connect with nation-wide efforts regarding research, best practices and lessons learned pertaining to longitudinal data systems.
5. The committee will identify funding sources to develop and sustain the systems.
6. The committee shall recommend other policies, procedures, and guidelines as necessary to achieve the mission.

Vision

- We envision a robust system with the capability to efficiently share and merge data from multiple sources while at the same time protecting the privacy and confidentiality of personal information.
- We envision the creation of a data warehouse system for storing and tracking outcomes over time.

- We envision education and workforce organizations across the state operating in their own data rich environments.
- We envision an LDS partnership which has the knowledge and skills to manage and analyze data and assist others in doing the same.
- We envision education and workforce organizations working together at the state and local level to provide meaningful standards and guidelines for sharing data efficiently.

Deliverables:

Data

1. Recommend data elements to be shared.
2. Recommend the role of the LDS committee in collecting and reporting data.
3. Identify data elements to be used in matching records across systems.
4. Review existing standards and adopt where appropriate.
5. Determine the availability and quality of the data required.
6. Identify data gaps and plan for improvements.
7. Identify costs associated with data requirements definition, collection and maintenance.
8. Develop metadata standards including metadata needed to identify the source of data for audit purposes.
9. Recommend frequency of data collection and reporting as well as initial data capture dates and retention policies.
10. Recommend procedures for assessing and reporting on data quality to identify improvement areas.

Policies

1. Identify state and federal privacy policies.
2. Develop actionable guidelines, policies and procedures to protect the privacy and security of shared data.
3. Develop data sharing agreements.
4. Identify resources needed for the development of policies and procedures.
5. Communicate state and federal data use requirements to all stakeholders.

Technology

1. Define technical requirements for data sharing systems.
2. Determine technical design and estimated cost of options to develop and maintain a data sharing system.
3. Define technical requirements for data warehouse / reporting system for data reported by the LDS Committee.
4. Determine technical design and estimated cost options to develop and maintain a data warehouse / reporting system for data reported by the LDS Committee.

Competency Center Services

1. Determine resources needed to operate and maintain the LDS.
2. Develop staffing plan and determine organizational structure.

3. Determine number and type of competencies needed to provide training and assistance to providers and users of longitudinal data regarding data quality processes, analysis and research, data interpretation, report development, etc.

Planning

1. Develop short term plan to gather requirements and plan for the LDS.
2. Develop overall, long term strategy for the LDS.
3. Develop a plan for the long term governance, management and administration of the LDS.
4. Develop a prioritized list of initiatives (with budgets) related to the development and reporting of longitudinal data.
5. Develop 2009-11 budget request and strategy for requesting funds.

Communications

1. Develop high level executive overview identifying the benefits and goals of the LDS.
2. Develop the business case for LDS implementation.

Assumptions:

1. The creation of the LDS does not preclude the use of or eliminate the need for each individual entity to collect and report data to demonstrate accountability for their sphere of influence. For example, data warehouses *will likely need to* be created by each of the following entities:

Responsible Entity	Level	Scope
DPI	State	K-12
School District	District	K-12
NDUS	State and Campus	13-20
CTE	State	9-14 CTE programs
JSND	State	Labor Market Information

In fact, a state LDS is likely to be based upon data from individual agency data warehouses which is in turn driven by the operational administrative information systems in each agency.

2. The LDS Committee will work with stakeholders to identify the appropriate source of data so that information is collected and reported as efficiently as possible.

3. It is not realistic to assign a single identifier to an individual across all systems. Probabilistic matching will use multiple identifiers to match across systems and/or agencies will attempt to include other agencies identifiers in their data systems for linking purposes.

4. Each individual entity will be responsible for the quality of their data and will have a role to play in ensuring the proper handling of data.

Definitions:

Longitudinal Data System (from http://en.wikipedia.org/wiki/Longitudinal_data_system)
A data system capable of tracking student information over multiple years in multiple schools.

Database (from http://webopedia.internet.com/)
A collection of information organized in such a way that a computer program can quickly select desired pieces of data. You can think of a database as an electronic filing system. To access information from a database, you need a *database management system (DBMS)*. This is a collection of programs that enables you to enter, organize, and select data in a database.

Data Mart (from http://webopedia.internet.com/)
A database, or collection of databases, designed to help managers make strategic decisions about their business. Whereas a data warehouse combines databases across an entire enterprise, data marts are usually smaller and focus on a particular subject or department. Some data marts, called *dependent data marts,* are subsets of larger data warehouses.

Data Warehouse (from http://webopedia.internet.com/)
Abbreviated *DW*, a collection of data designed to support management decision making. Data warehouses contain a wide variety of data that present a coherent picture of business conditions at a single point in time. Development of a data warehouse includes development of systems to extract data from operating systems plus installation of a warehouse database system that provides managers flexible access to the data. The term data warehousing generally refers to the combination of many different databases across an entire enterprise.